Georgia Department of Transportation

Interoffice Memo
Office of Design Policy & Support

DATE: **3/29/2019**

FILE: P.I.# 0015536
Brantley County / GDOT District 5 - Jesup
SR520/US82 @ Mill Creek Part of Satilla River Overflow -
Bridge Replacement

FROM: for Brent Story, State Design Policy Engineer

TO: SEE DISTRIBUTION

SUBJECT: **APPROVED CONCEPT REPORT**

Attached is the approved Concept Report for the above subject project.

Attachment

Distribution:

Hiral Patel, Director of Engineering
Joe Carpenter, Director of P3
Albert Shelby, Director of Program Delivery
Carol Comer, Director, Division of Intermodal
Darryl VanMeter, Assistant Director of P3/State Innovative Delivery Administrator
Kim Nesbitt, Program Delivery Administrator
Bobby Hilliard, Program Control Administrator
Paul Tanner, State Transportation Planning Administrator
Eric Duff, State Environmental Administrator
Bill DuVall, State Bridge Engineer
Andrew Heath, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Erik Rohde, State Project Review Engineer
Monica Flournoy, State Materials Engineer
Patrick Allen, State Utilities Engineer
Eric Conklin, State Transportation Data Administrator
Attn: Systems & Classification Branch
Benny Walden, Statewide Location Bureau Chief
Andy Casey, State Roadway Design Engineer
Attn: Steven Boockholdt, Design Group Manager
Brad Saxon, District Engineer
Troy Pittman, District Preconstruction Engineer
Dallory Rozier, District Utilities Engineer
Kenneth Wicks, Project Manager
BOARD MEMBER - 1st Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
LIMITED SCOPE PROJECT CONCEPT REPORT

Project Type:	BRIDGE REPLACEMENT	P.I. Number:	0015536
GDOT District:	5	County:	BRANTLEY
Federal Route Number:	82	State Route Number:	520
	Project Number:	N/A	

Replacement of the westbound SR 520 / US 82 bridge over Mill Creek, a part of the Satilla River overflow, approximately 14 miles East of Hoboken in Brantley County.

Concept Report resubmitted 03/28/2019 - AT

Submitted for approval:

C. Andy Cary — State Roadway Design Engineer — Date 1/24/19

Kimberly W. Tackett — State Program Delivery Administrator — Date 1/30/19

Ramona Wilson — GDOT Project Manager — Date 1/25/2019

Recommendation for approval: *Recommendations on File

*Eric Duff/AT — State Environmental Administrator — Date 03/25/2019

*Christopher Raymond/AT — State Traffic Engineer — Date 02/08/2019

*Bill DuVall/AT — State Bridge Engineer — Date 02/11/2019

*Brad Saxon/AT — District Engineer — Date 02/12/2019

☐ MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).

☒ Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

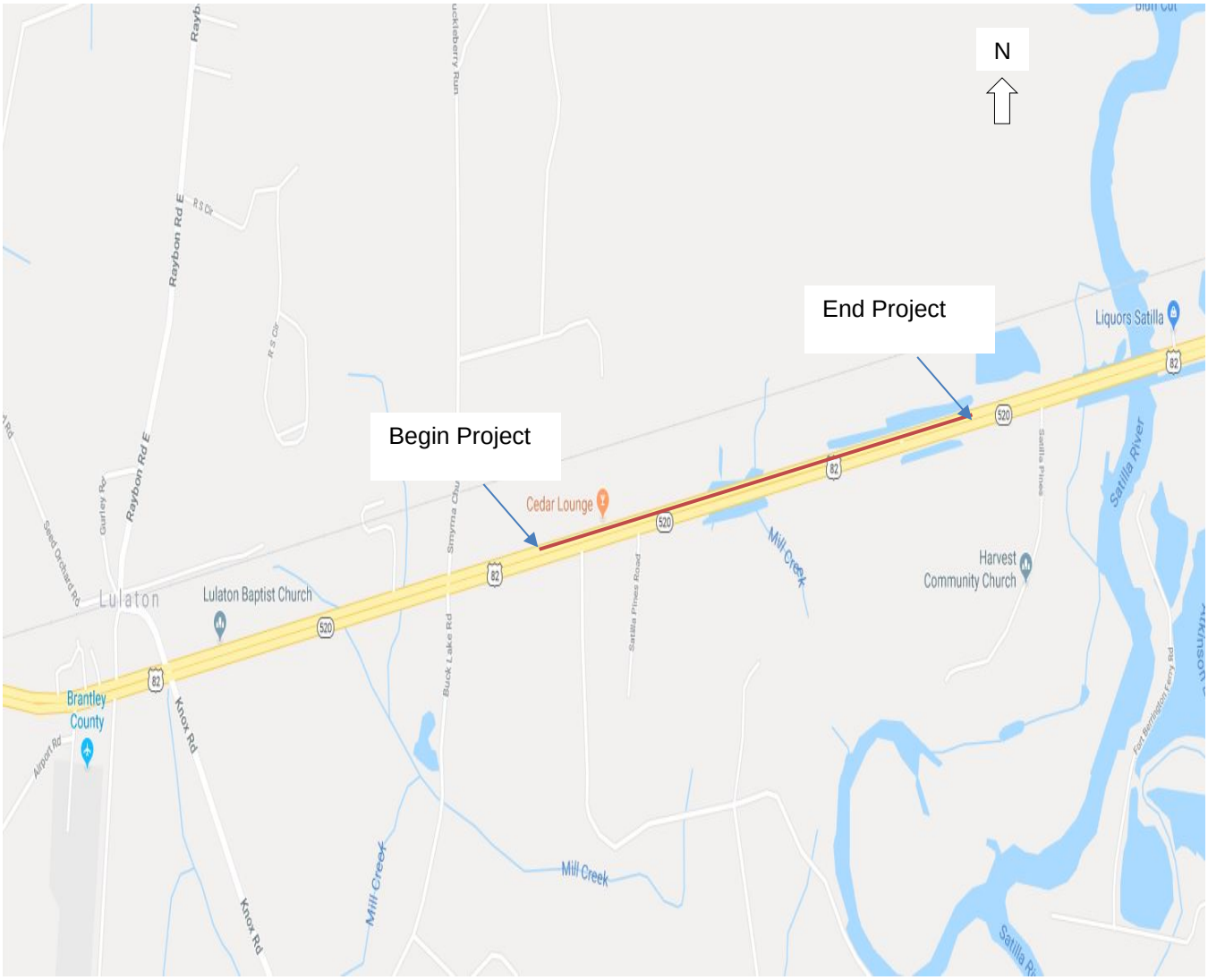
*Paul Tanner/AT — State Transportation Planning Administrator — Date 02/05/2019

Approval:

Concur: Hiel Reel — GDOT Director of Engineering — Date 3-29-19

Approve: Margaret B. Pickle — GDOT Chief Engineer — Date 3.29.19

PROJECT LOCATION MAP



PLANNING & BACKGROUND DATA

Project Justification Statement: The project justification statement was prepared by the office of Bridge Design.

The westbound bridge on State Route 520 (US 82) over Mill Creek, a part of Satilla River Overflow, Structure ID 025-0025-0 was built in 1964. The bridge consists of thirty four spans of steel I beams with concrete caps and piles.The design vehicle used was an HS-20 truck, which is below current design standards. The overall condition of the bridge is in poor condition. The deck is in fair condition with moderate cracks. In addition, minor efflorescence is present in areas where cracks are present. The superstructure is in poor condition with the majority of exterior beams having signs of major corrosion and noticeable section loss. The substructure is in fair condition with all caps having minor vertical cracking and spalling. Due to the age of the structure and not meeting current design standards, replacement of this bridge is recommended.

Existing conditions: The existing typical section of SR 520-US 82 consists of four 12 foot travel lanes, two in each direction, and a depressed median with rural shoulders. Additionally SR 520/US 82 consists of structure ID 025-0025-0 which is the westbound bridge that consists of 34 spans of steel I beams with concrete caps and piles. The bridge deck width is 34.2 ft and the roadway width is 28 ft. The total length of the bridge is 680ft. The project is located along a hurricane evacuation route.

Other projects in the area: N/A

MPO: N/A - not in an MPO **TIP #:** N/A

Congressional District(s): 1

Federal Oversight: ☐PoDI ☒Exempt ☐State Funded ☐Other

Projected Traffic: AADT 7850 24 HR T: 12%
Current Year (2016): 7850 Open Year (2023): 9025 Design Year (2043): 13400
Traffic Projections Performed by:HNTB
Date approved by the GDOT Office of Planning: 3/12/2018

Functional Classification (Mainline): Rural Principal Arterial

Complete Streets - Bicycle, Pedestrian, and/or Transit Standards Warrants:
Warrants met: ☐None ☒Bicycle ☐Pedestrian ☐Transit
Georgia State Bicycle route 10 is located along SR 520/US 82.

Pavement Evaluation and Recommendations

Initial Pavement Evaluation Summary Report Required?		☒No	☐Yes
Initial Pavement Type Selection Report Required?		☒No	☐Yes
Feasible Pavement Alternatives:	☒HMA	☐PCC	☐HMA & PCC

DESIGN AND STRUCTURAL

Description of Proposed Project: This project is located on State Route 520 over Mill Creek, a part of Satilla River overflow, 14 miles east of Hoboken. The project proposes the replacement of the westbound bridge structure. The total length of the project is approximately 1.09 miles.The proposed bridge will be 680ft long by 39 ft 3in wide and will be constructed at the current location elevation and roadway centerline.Traffic will be reduced to one lane in each direction and routed onto the existing eastbound bridge structure ID 025-0034-0 during the replacement of the new westbound bridge structure ID 025-0025-0.

Major Structures:

Structure ID	Existing	Proposed
025-0025-0	The existing westbound bridge deck width is 34.2 ft and the bridge roadway width is 28ft .The total length of the bridge is 680ft.	The proposed structure is 680ft by 39ft 3 in wide. The typical includes two 12 ft lanes with a 4ft inside shoulder and a 8 ft outside shoulder.
025-0034-0	The existing eastbound bridge deck width is 41.3 ft and the bridge roadway width is 37.8ft .The total length of the bridge is 680ft.	n/a

Mainline Design Features: ***SR 520/US 82***

Feature	Existing	Policy	Proposed
Typical Section			
- Number of Lanes	4	4	4
- **Lane Width(s)**	**12-ft.**	**11-12-ft.**	**12-ft.**
- **Median Width & Type**	**34-ft. Depressed Median**	**44-ft. Depressed Median**	**34-ft. Depressed Median**
- **Outside Shoulder Width**	**10 ft (4ft paved)**	**10ft (6.5ft paved)**	**10ft (4ft paved)**
- **Outside Shoulder Slope**	**unknown**	**6%**	**6%**
- **Inside Shoulder Width**	**8ft**	**6ft (2 ft paved)**	**6ft (2ft paved)**
- **Sidewalks**	**N/A**	**N/A**	**N/A**
- Auxiliary Lanes	N/A		N/A
- **Bike Accommodations**	**N/A**	**Bikeable shoulder**	**Bikeable shoulder**
Posted Speed	65 mph		65 mph
Design Speed	**65mph**	**65mph**	**65 mph**
Minimum Horizontal Curve Radius	**n/a**	**1480ft**	**n/a**
Maximum Superelevation Rate	**n/a**	**8%**	**8%**
Maximum Grade	**n/a**	**3% (Level Terrain)**	**3%**
Access Control	By Permit	By Permit	By Permit
Design Vehicle	Unknown		WB-67
Pavement Type	Asphalt		Asphalt

Is the project located on a NHS roadway? ☐ No ☒ Yes

Design Exceptions/Design Variances to GDOT and/or FHWA Controlling Criteria anticipated:
No design exceptions/variances are anticipated for controlling criteria.

Design Variances to GDOT Standard Criteria anticipated:
The current depressed median width does not meet minimum criteria required by the GDOT Design Policy Manual. The scope of this project is to replace the exisitng bridge on its current alignment and grade. As such, the existing 34-ft. median of SR 520 will not be widened to meet the minimum criteria. A Design Variance will be sought for the substandard median width.

Lighting required: ☒ No ☐ Yes

Off-site Detours Anticipated: ☒ No ☐ Undetermined ☐ Yes

Transportation Management Plan [TMP] Required: ☐ No ☒ Yes
If Yes: Project classified as: ☒ Non-Significant
TMP Components Anticipated: ☒ TTC

INTERCHANGES AND INTERSECTIONS

Major Interchanges/Intersections: None.

Intersection Control Evaluation (ICE) Required: ☒ No ☐ Yes

Roundabout Peer Review Required: ☒ No ☐ Yes ☐ Completed – Date: N/A

UTILITY AND PROPERTY

Railroad Involvement: No.

Utility Involvements: No involvement with utilities. All utilities are located on the Eastbound bridge.

SUE Required: ☒ No ☐Yes

Public Interest Determination Policy and Procedure recommended? ☒ No ☐ Yes

Right-of-Way: Existing width: 300ft. Proposed width: 300ft.
Required Right-of-Way anticipated: ☒ None ☐ Yes ☐ Undetermined
Easements anticipated: ☒ None ☐ Temporary ☐ Permanent ☐ Utility ☐ Other

Anticipated total number of impacted parcels: 0
Displacements anticipated: Businesses: 0
Residences: 0
Other: 0
Total Displacements: 0

Impacts to USACE property anticipated? ☒ No ☐ Yes ☐ Undetermined

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: None

Context Sensitive Solutions Proposed: None

ENVIRONMENTAL AND PERMITS

Anticipated Environmental Document:
NEPA: ☐ PCE ☒ CE ☐ EA-FONSI
GEPA: ☐ Type A ☐ Type B ☐ None

Level of Environmental Analysis:

☒ The environmental considerations noted below are based on preliminary desktop or screening level environmental analysis and are subject to revision after the completion of resource identification, delineation, and agency concurrence.

☐ The environmental considerations noted below are based on the completion of resource identification, delineation, and agency concurrence.

Water Quality Requirements:
MS4 Compliance – Is the project located in an MS4 area? ☒ No ☐ Yes

Is Non-MS4 water quality mitigation anticipated? ☒ No ☐ Yes

Environmental Permits, Variances, Commitments, and Coordination anticipated:

Permit/Variance/Commitment/ Coordination Anticipated	No	Yes	Remarks
1. U.S. Coast Guard Permit	☒	☐	
2. Forest Service/NPS	☒	☐	
3. CWA Section 404 Permit	☐	☒	
4. Tennessee Valley Authority Permit	☒	☐	
5. USACE Real Estate Outgrant	☒	☐	
6. Buffer Variance	☒	☐	
7. Coastal Zone Management Coordination	☒	☐	
8. NPDES	☐	☒	
9. FEMA	☒	☐	
10. Cemetery Permit	☒	☐	
11. Other Permits	☒	☐	
12. Other Commitments	☒	☐	
13. Other Coordination	☒	☐	

Air Quality:
Is the project located in an Ozone Non-attainment area? ☒ No ☐ Yes
Carbon Monoxide hotspot analysis required? ☒ No ☐ Yes

NEPA/GEPA Comments & Information:
Archaeology: Phase 1 archaeology survey will need to be conducted and the survey is currently in progress and will be completed during preliminary design.
History: There are several historic resources located on the corridor, including both commercial and residential properties. Field surveys will need to be conducted, as well as a Historic Resources Survey Report and Assessment of Effects, to determine if any eligible properties for the National Register of Historic Places are located along the corridor**.**
Ecologist: There are 11 wetlands, 1 intermittent stream, 1 perennial stream, 1 open water and 3 non buffered state waters within the project area.
Noise and air: No concerns. Write-offs anticipated.

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Is Federal Aviation Administration (FAA) coordination anticipated? ☐ No ☒ Yes
Brantley County Airport is located approximately 7600ft from the project

Project Meetings: Concept Team meeting 12/12/2018

Other coordination to date: None

Project Activity	Party Responsible for Performing Task(s)
Concept Development	GDOT Office of Roadway Design
Design	GDOT Office of Roadway Design
Right-of-Way Acquisition	GDOT Office of Right of Way
Utility Coordination (Preconstruction)	GDOT Office of Utilities
Utility Relocation (Construction)	Utility Owner
Letting to Contract	GDOT Office of Contracts
Construction Supervision	GDOT Office of Construction
Providing Material Pits	Contractor
Providing Detours	Contractor
Environmental Studies, Documents, & Permits	GDOT Office of Environmental Services
Environmental Mitigation	GDOT Office of Environmental Services
Construction Inspection & Materials Testing	GDOT Office of Construction and Office of Materials and Research

Project Cost Estimate and Funding Responsibilities:

	PE Activities		ROW	Reimbursable Utilities	CST*	Total Cost
	PE Funding	Section 404 Mitigation				
Programmed Cost:	$800,000		$300,000	$50,000	$5,650,000	$6,800,000
Funded By:	GDOT	GDOT	GDOT	GDOT	GDOT	
Estimated Amount:	$800,000	$15,000	$0	$0	$7,440,107.44	$8,255,107.44
Date of Estimate:	2018	3/6/19	N/A	N/A	3/28/19	
Cost Difference:	$0		$(300,000)	$(50,000)	$1,790,107.44	$1,455,107.44

*CST Cost includes: Construction, Engineering and Inspection, Contingencies and Liquid AC Cost Adjustment. See attachment 3 for details

ALTERNATIVES DISCUSSION

Preferred Alternative: Replacement of the westbound bridge structure over Mill Creek, a part of the Satilla River overflow, 14 miles east of Hoboken via onsite detour. Close westbound lanes of SR 520 just before and after the bridge. Reduce westbound and eastbound traffic to one lane in each direction of travel and detour both directions of travel onto the eastbound bridge via temporary median crossovers during replacement of the westbound bridge.			
Estimated Property Impacts:	**None**	**Estimated Total Cost:**	**$8,255,107.44**
Estimated ROW Cost:	**None**	**Estimated CST Time:**	**24 months**
Rationale: This alternative will satisfy the project justification statement to replace a deficient bridge. This alternative will minimize the delay impacts to the traveling public including impacts to rerouting emergency vehicles through a long detour. This alternative minimize construction costs by using the existing Eastbound lanes for the onsite detour to negate the need to build a temporary bridge in the median to maintain four lanes of traffic while providing an acceptable level of service.			

No-Build Alternative: No build; leave bridge as-is.			
Estimated Property Impacts:	None	Estimated Total Cost:	$0.00
Estimated ROW Cost:	**$0.00**	**Estimated CST Time:**	**0 Months**
Rationale: This does not satisfy the project justification statement for the project.			

Alternative 1: Replacement of westbound bridge structure over Mill Creek, a part of the Satilla River overflow, 14 miles east of Hoboken via an offsite detour, The westbound traffic lanes just before and after the existing bridge will be closed during the replacement of the westbound bridge. Westbound traffic will be detoured utilizing a state route to state route detour which will include SR 110 and SR 301. The approximate length of the detour would be 21.5 miles. Eastbound traffic will remain in its current configuration throughout construction. See attachement 2 for offsite detour route.			
Estimated Property Impacts:	**None**	**Estimated Total Cost:**	**$7,917,728.75**
Estimated ROW Cost:	**$0.00**	**Estimated CST Time:**	**18 months**
Rationale: This alternative will satisfy the project justification statement to replace a deficient bridge. Although this alternative is less costly than the preferred alternative, the length of the offsite detour will have heavy impacts on traffic delays. Emergency vehicles will have a significant delay through the offsite detour.			

Additional Comments/ Information: None

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Offstie Detour Map - Alternative 1
3. Typical sections
4. Cost Estimates
    - CES
    - Mitigation cost letter
    - Contingencies and E/I
    - Asphalt fuel adjustment
5. Crash summaries
6. Traffic projections
7. Capacity analysis summary
8. Bridge Inventory Data
9. Meeting Minutes

ATTACHMENT 1

CONCEPT LAYOUT

SEE SHEET 2 OF 2

GDOT

ROADWAY DESIGN

SCALE IN FEET
0 100 200 400

REVISION DATES

PROJECT LAYOUT

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		0001
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN

ROADWAY DESIGN

SCALE IN FEET
0 100 200 400

REVISION DATES

PROJECT LAYOUT

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		0002
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN

SEE SHEET 2 OF 2

ROADWAY DESIGN

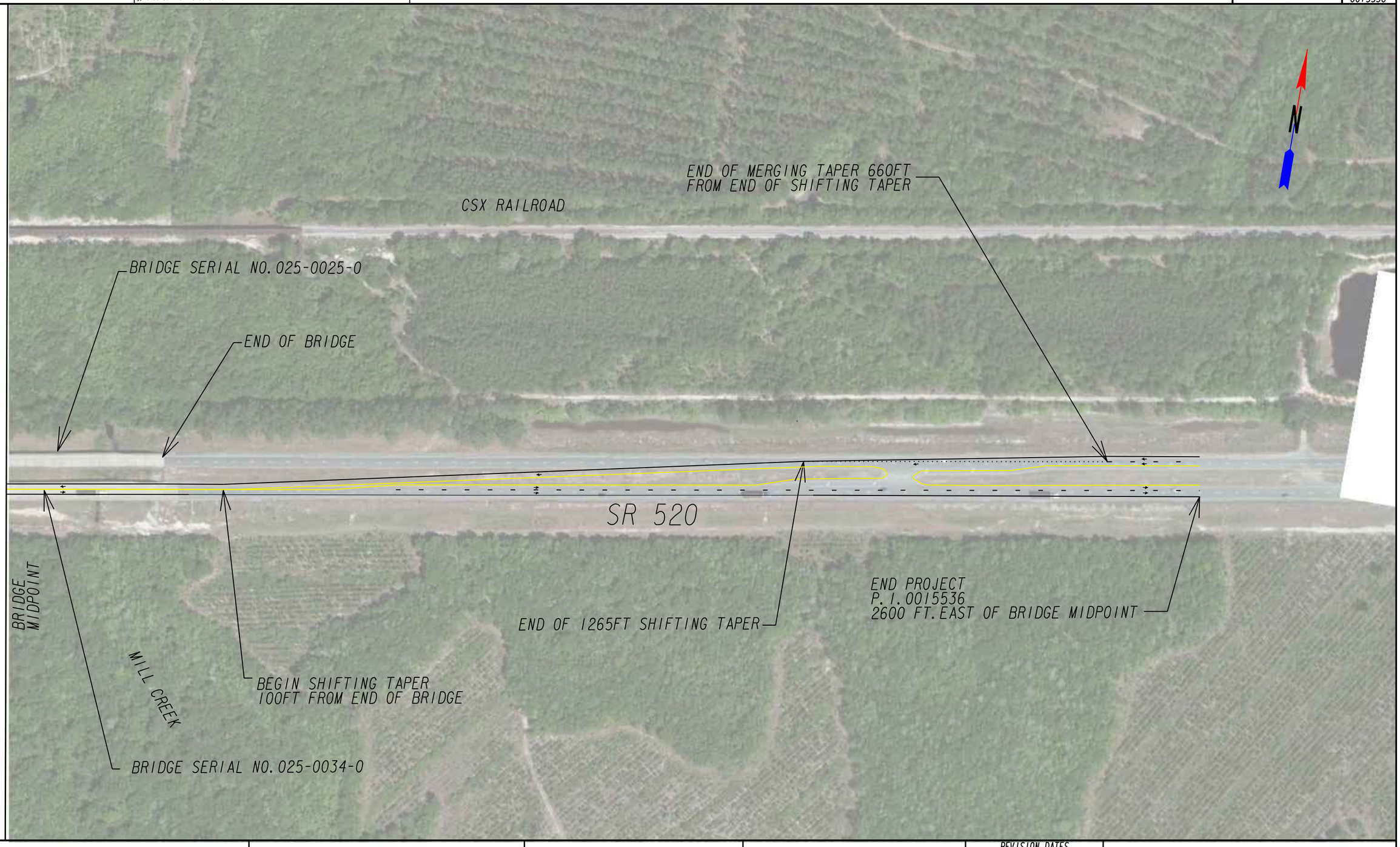
SCALE IN FEET
0 100 200 400

REVISION DATES

ONSITE STAGING LAYOUT

CHECKED:		DATE:	DRAWING No.
BACKCHECKED:		DATE:	0001
CORRECTED:		DATE:	
VERIFIED:		DATE:	

10/23/2015 GPLN



ROADWAY DESIGN

SCALE IN FEET
0 100 200 400

REVISION DATES

ONSITE STAGING LAYOUT

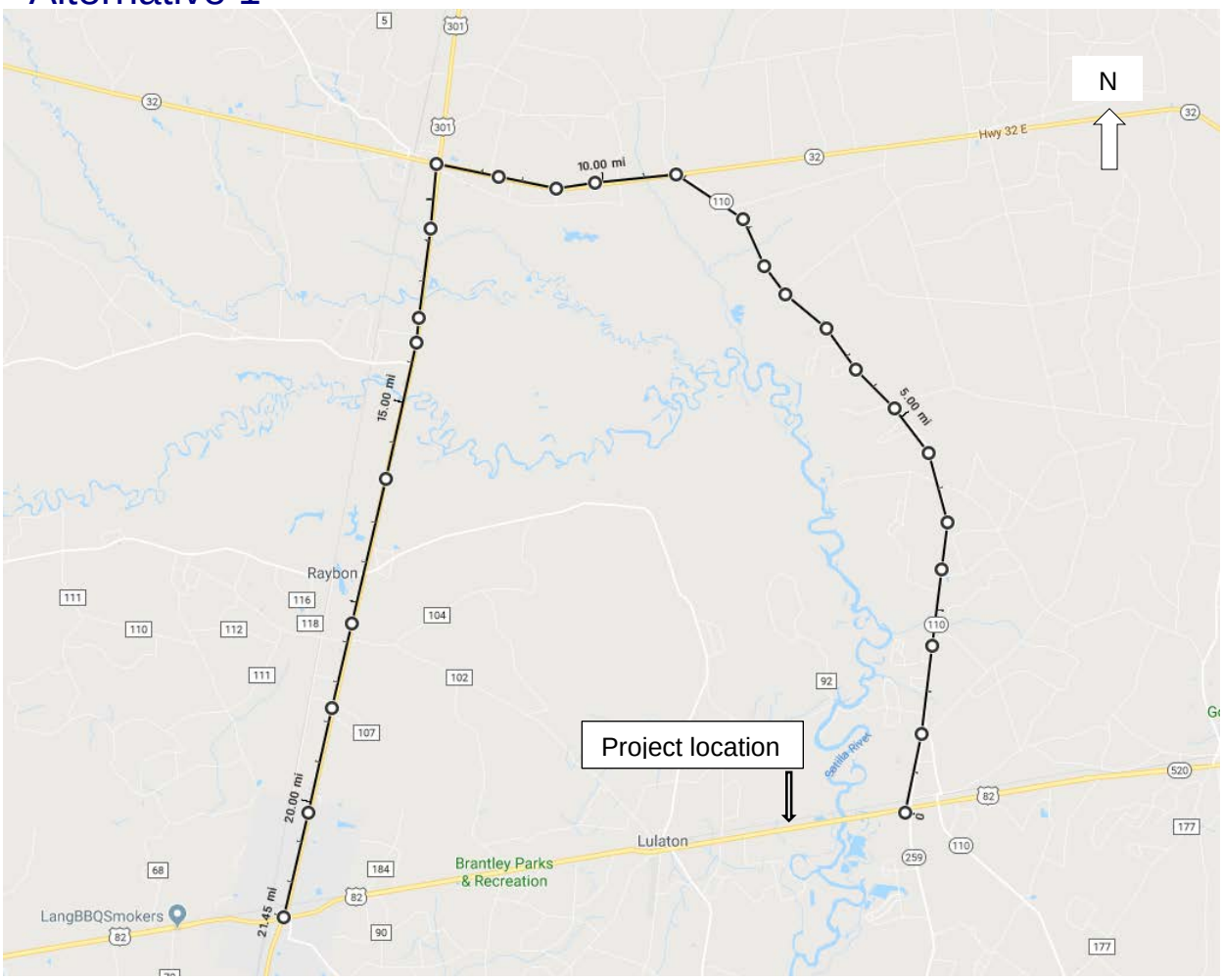
CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		0002
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN

ATTACHMENT 2

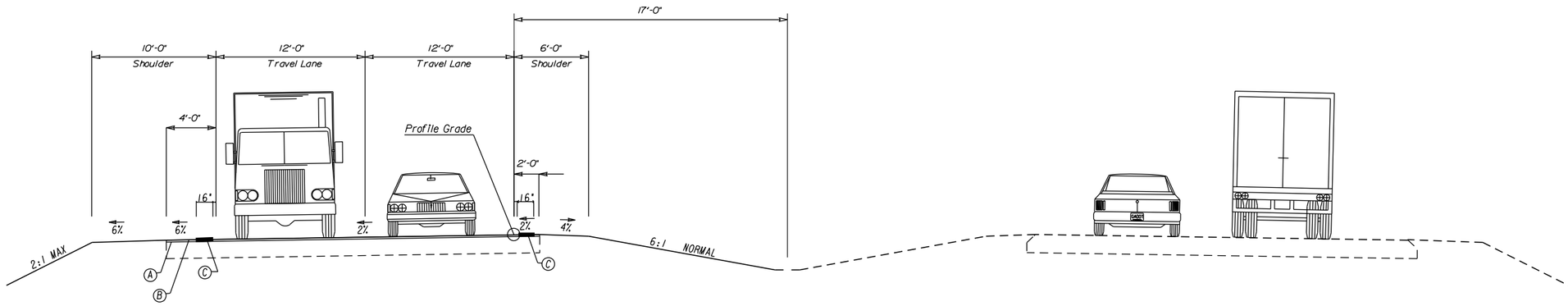
OFFSITE DETOUR MAP

Alternative 1



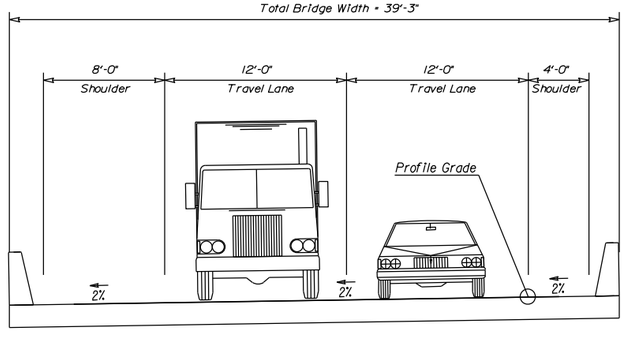
ATTACHMENT 3

TYPICAL SECTIONS

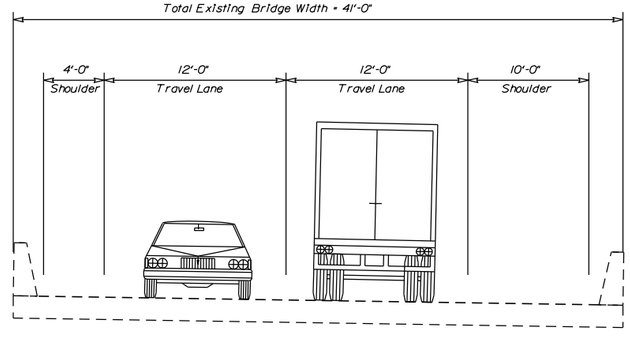


TS-01
SR 520/US 82 Mainline Section

REQUIRED PAVEMENT:
(A) RECYCLED ASPH CONC 12.5MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL&HLIME, 165 LBS/SY
(B) MILL ASPH CONC PVMT, 1.5 IN DEPTH
(C) INDENTATION RUMBLE STRIPS-GROUND-IN PLACE (SKIP)(SEE CONSTRUCTION DETAIL T-25)



TS-02
SR 520/US 82 Bridge Section



TS-03
SR 520/US 82 Detour Section

ROADWAY DESIGN

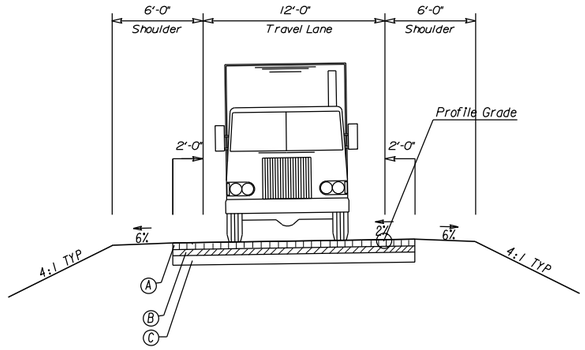
NOT TO SCALE

REVISION DATES

TYPICAL SECTIONS
SR 520/ US 82 @ MILL CREEK
BRANTLEY COUNTY

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		05-0001
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN



TS-02
SR 520/82 Temporary Pavement

REQUIRED PAVEMENT:
Ⓐ RECYCLED ASPH CONC 12.5MM SUPERPAVE, GP2 ONLY, INCL BITUM MATL & H LIME, 165LBS/SY
Ⓑ RECYCLED ASPH CONC 19MM SUPERPAVE, GP1 OR GP2, INCL BITUM MATL & H LIME, 220LBS/SY
Ⓒ GR AGGR BASE CRS, INCL MATL, 8"

ROADWAY DESIGN

NOT TO SCALE

REVISION DATES

TYPICAL SECTIONS

SR 520/ US 82 @ MILL CREEK
BRANTLEY COUNTY

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		05-0002
VERIFIED:		DATE:		

ATTACHMENT 4

COST ESTIMATES

Georgia Department of Transportation

Interoffice Memo

FILE P.I. No. **0015536**

OFFICE ROADWAY DESIGN

PROJECT DESCRIPTION

THIS PROJECT IS LOCATED ON STATE ROUTE 520 OVER MILL CREEK, A PART OF SATILLA RIVER OVERFLOW, 14 MILES EAST OF HOBOKEN.

DATE March 28 2019

From: Andy Casey, P.E. State Roadway Design Engineer

To: Erik Rohde, P.E., State Project Review Engineer
via Email Mailbox: **CostEstimatesandUpdates@dot.ga.gov**

Subject: REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER Kenneth Wicks

MGMT LET DATE August 15, 2021

MGMT ROW DATE July 15, 2020

PROGRAMMED COSTS (TPro W/OUT INFLATION)			**LAST ESTIMATE UPDATE**
CONSTRUCTION	**$**	5,650,000.00	DATE
RIGHT OF WAY	**$**	300,000.00	DATE
UTILITIES	**$**	50,000.00	DATE

REVISED COST ESTIMATES

CONSTRUCTION*	**$**	7,440,107.44
RIGHT OF WAY	**$**	0.00
UTILITIES	**$**	0.00

*Cost Contains **15** % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

Concept layout determined no right of way or utilities will be impacted. Refined concept layout for construction cost. Added concept level contingencies and E&I.

CONTINGENCY SUMMARY

A.	**CONSTRUCTION COST ESTIMATE:**	$ 6,142,843.80	Base Estimate From CES		
B.	**ENGINEERING AND INSPECTION (E & I):**	$ 307,142.19	Base Estimate (A) x	**5**	%
C.	**CONTINGENCY:**	$ 967,497.90	Base Estimate (A + B) x	**15**	%
			See % Table in "Risk Based Cost Estimation" Memo		
D.	**TOTAL LIQUID AC ADJUSTMENT:**	$ 22,623.56	Total From Liquid AC Spreadsheet		
E.	**CONSTRUCTION TOTAL:**	$ **7,440,107.44**	(A + B + C + D = E)		

REIMBURSABLE UTILTY COSTS

UTILITY OWNER	REIMBURSABLE COST
TOTAL	**$ -**

ATTACHMENTS: (File Copy in the Project Cost Estimate Folder)

Detailed Cost Estimate Printout From GDOT 411
Liquid AC Adjustment Spreadsheet

Detailed Cost Estimate

Time Processed: Mar-28-2019 10:35:10 AM

JOB NUMBER: 0015536
FED/STATE PROJECT NUMBER:
SPEC YEAR: 13
ITEM HISTORY: ALL_2017Q4_24MO
DESCRIPTION: SR 520/US 82 @ SATILLA RIVER OVERFLOW 14 MI E OF HOBOKEN
ASSIGNED CONTROL GROUP: OFFICE OF ROADWAY DESIGN

ITEMS FOR JOB 0015536

0010 - ROADWAY

Line Number	Item	Quantity	Units	Price	Description	Amount
0005	150-1000	1.00	LS	$100,000.00000	TRAFFIC CONTROL - 0015536	$100,000.00
0034	641-5001	1.00	EA	$1,076.98541	GUARDRAIL ANCHORAGE, TP 1	$1,076.99
0044	641-1100	168.00	LF	$71.71830	GUARDRAIL, TP T	$12,048.67
0049	641-1200	1444.00	LF	$18.40787	GUARDRAIL, TP W	$26,580.96
0054	153-1300	1.00	EA	$92,681.81044	FIELD ENGINEERS OFFICE TP 3	$92,681.81
0277	433-1000	267.00	SY	$174.13376	REINF CONC APPROACH SLAB	$46,493.71
0287	632-0003	2.00	EA	$7,517.33356	CHANGEABLE MESS SIGN,PORT,TP 3	$15,034.67
0297	603-2024	2130.00	SY	$62.49682	STN DUMPED RIP RAP, TP 1, 24	$133,118.23
0462	641-5015	5.00	EACH	$3,371.18000	GUARDRL ANCHOR, TP 12A, 31 IN, TANG, E/A	$16,855.90
0487	603-7000	2142.00	SY	$4.33187	PLASTIC FILTER FABRIC	$9,278.87
0492	603-2182	12.00	SY	$86.73878	STN DUMPED RIP RAP, TP 3, 24	$1,040.87
0497	413-0750	487.00	GL	$2.61000	TACK COAT	$1,271.07
0502	402-3130	669.00	TN	$114.91902	RECYL AC 12.5MM SP,GP2,BM&HL	$76,880.82
0532	318-3000	30.00	TN	$40.00022	AGGR SURF CRS	$1,200.01
0552	456-2015	2.00	GLM	$3,731.63128	INDENT. RUMB. STRIPS - GRND-IN-PL (SKIP)	$7,463.26
0637	210-0100	1.00	LS	$336,000.00000	GRADING COMPLETE - 0015536	$336,000.00
0652	402-3190	158.00	TN	$106.84762	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	$16,881.92
0662	310-1101	134.00	TN	$46.59367	GR AGGR BASE CRS, INCL MATL	$6,243.55
0667	432-0206	7701.00	SY	$4.26897	MILL ASPH CONC PVMT/ 1.50 DEP	$32,875.34
ROADWAY Total						**$933,026.65**

0020 - TEMPORARY EROSION CONTROL

Line Number	Item	Quantity	Units	Price	Description	Amount
0267	643-8200	1000.00	LF	$2.48542	BARRIER FENCE (ORANGE), 4 FT	$2,485.42
0317	163-0300	2.00	EA	$1,714.63212	CONSTRUCTION EXIT	$3,429.26
0322	165-0101	2.00	EA	$584.88567	MAINT OF CONST EXIT	$1,169.77
0327	171-0030	4000.00	LF	$4.38573	TEMPORARY SILT FENCE, TYPE C	$17,542.92
0332	165-0030	2000.00	LF	$0.94379	MAINT OF TEMP SILT FENCE, TP C	$1,887.58
0337	167-1000	2.00	EA	$460.58778	WATER QUALITY MONITORING AND SAMPLING	$921.18
0342	167-1500	24.00	MO	$891.29709	WATER QUALITY INSPECTIONS	$21,391.13
0347	163-0232	4.00	AC	$650.42790	TEMPORARY GRASSING	$2,601.71
0352	163-0240	136.00	TN	$227.45330	MULCH	$30,933.65
0357	163-0520	200.00	LF	$20.60794	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	$4,121.59
0362	163-0528	1200.00	LF	$5.67615	CONSTR AND REM FAB CK DAM -TP C SLT FN	$6,811.38
0367	163-0527	15.00	EA	$401.70537	CNST/REM RIP RAP CKDM,STN P RIPRAP/SN BG	$6,025.58
0372	165-0041	1350.00	LF	$3.01015	MAINT OF CHECK DAMS - ALL TYPES	$4,063.70
0377	716-2000	10000.00	SY	$1.53572	EROSION CONTROL MATS, SLOPES	$15,357.20
0392	163-0542	4.00	EA	$672.77754	CONSTR & REM STONE FILTER RING	$2,691.11
0397	163-0550	5.00	EA	$298.18382	CONS & REM INLET SEDIMENT TRAP	$1,490.92
0402	165-0105	5.00	EA	$69.92476	MAINT OF INLET SEDIMENT TRAP	$349.62
0407	165-0111	4.00	EA	$100.61841	MAINT OF STONE FILTER RING	$402.47
TEMPORARY EROSION CONTROL Total						**$123,676.19**

0030 - PERMANENT EROSION CONTROL

Line Number	Item	Quantity	Units	Price	Description	Amount
0412	700-6910	8.00	AC	$1,401.12646	PERMANENT GRASSING	$11,209.01
0417	700-7000	16.00	TN	$110.49064	AGRICULTURAL LIME	$1,767.85
0422	700-8100	400.00	LB	$3.96032	FERTILIZER NITROGEN CONTENT	$1,584.13
0427	700-8000	3.00	TN	$654.72735	FERTILIZER MIXED GRADE	$1,964.18
PERMANENT EROSION CONTROL Total						**$16,525.17**

0040 - SIGNING AND MARKING

Line Number	Item	Quantity	Units	Price	Description	Amount
0442	654-1003	80.00	EA	$6.16448	RAISED PVMT MARKERS TP 3	$493.16
0447	653-1501	5683.00	LF	$0.81671	THERMO SOLID TRAF ST 5 IN, WHI	$4,641.36
0452	653-1502	5683.00	LF	$0.73918	THERMO SOLID TRAF ST, 5 IN YEL	$4,200.76
0457	653-3501	5683.00	GLF	$0.75633	THERMO SKIP TRAF ST, 5 IN, WHI	$4,298.22

Line Number	Item	Quantity	Units	Price	Description	Amount
0467	636-1033	57.00	SF	$17.22149	HWY SIGNS, TP1MAT,REFL SH TP 9	$981.62
0472	636-1036	113.00	SF	$21.44000	HWY SGN,TP1MAT,REFL SH TP 11	$2,422.72
0477	636-2070	351.00	LF	$7.76048	GALV STEEL POSTS, TP 7	$2,723.93
0557	657-1085	680.00	LF	$8.00520	PRF PL SD PVT MKG,8,B/W,TP PB	$5,443.54
0562	657-3085	680.00	GLF	$5.11291	PRF PL SK PVMT MKG,8,B/W,TPPB	$3,476.78
0567	657-6085	680.00	LF	$7.84804	PRF PL SD PVMT MKG,8,B/Y,TPPB	$5,336.67
SIGNING AND MARKING Total						**$34,018.76**

0050 - BRIDGE

Line Number	Item	Quantity	Units	Price	Description	Amount
0432	543-9000	1.00	LS	$3,676,250.00000	CONSTR OF BRIDGE COMPLETE - 1	$3,676,250.00
0437	540-1102	1.00	LS	$1,049,591.25000	REM OF EX BR, BR NO - 1	$1,049,591.25
BRIDGE Total						**$4,725,841.25**

0060 - DRAINAGE

Line Number	Item	Quantity	Units	Price	Description	Amount
0527	576-1018	200.00	LF	$49.24890	SLOPE DRAIN PIPE, 18 IN	$9,849.78
0537	441-0301	2.00	EA	$2,170.79680	CONC SPILLWAY, TP 1	$4,341.59
0547	500-3101	28.00	CY	$1,500.00000	CLASS A CONCRETE	$42,000.00
0617	441-0303	2.00	EA	$2,121.24551	CONC SPILLWAY, TP 3	$4,242.49
0632	611-8040	5.00	EA	$1,527.10991	ADJUST DROP INLET TO GRADE	$7,635.55
DRAINAGE Total						**$68,069.41**

0070 - TEMPORARY STAGING

Line Number	Item	Quantity	Units	Price	Description	Amount
0507	402-3190	351.00	TN	$100.00699	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	$35,102.45
0517	310-1101	1434.00	TN	$37.40657	GR AGGR BASE CRS, INCL MATL	$53,641.02
0577	550-3318	4.00	EA	$690.28069	SAFETY END SECTION 18,STD,4:1	$2,761.12
0582	402-3130	263.00	TN	$77.58194	RECYL AC 12.5MM SP,GP2,BM&HL	$20,404.05
0592	413-0750	191.00	GL	$2.61000	TACK COAT	$498.51
0597	620-0100	3320.00	LF	$29.52675	TEMP BARRIER, METHOD NO. 1	$98,028.81
0622	550-1180	400.00	LF	$57.30050	STM DR PIPE 18,H 1-10	$22,920.20
0672	150-5010	1.00	EA	$8,330.21053	TRAF CTRL,PORTABLE IMPACT ATTN	$8,330.21
TEMPORARY STAGING Total						**$241,686.37**

TOTALS FOR JOB 0015536

ITEMS COST:	$6,142,843.80
COST GROUP COST:	$0.00
ESTIMATED COST:	$6,142,843.80
CONTINGENCY PERCENT:	0.00%
ENGINEERING AND INSPECTION:	0.00%
ESTIMATED COST WITH CONTINGENCY AND E&I:	$6,142,843.80

File Location: Div of Preconstruction > CES

PROJ. NO.		CALL NO.	0/00/2016
P.I. NO.	0015536		
DATE	3/22/2019		

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Mar-19	$ 2.296
DIESEL		$ 2.979
LIQUID AC		$ 503.00

Link to AC Index:
http://www.dot.ga.gov/PS/Materials/AsphaltFuelIndex

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)				**21744.69**	**$ 21,744.69**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	804.80	
Monthly Asphalt Cement Price month project let (APL)			$	503.00	
Total Monthly Tonnage of asphalt cement (TMT)				72.05	

ASPHALT	Tons	%AC	AC ton
Leveling		5.0%	0
12.5 OGFC		5.0%	0
12.5 mm	932	5.0%	46.6
9.5 mm SP		5.0%	0
25 mm SP		5.0%	0
19 mm SP	509	5.0%	25.45
	1441		**72.05**

BITUMINOUS TACK COAT

Price Adjustment (PA)				**$ 878.87**	**$ 878.87**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	804.80	
Monthly Asphalt Cement Price month project let (APL)			$	503.00	
Total Monthly Tonnage of asphalt cement (TMT)				2.912078425	

Bitum Tack Gals	gals/ton	tons
678	232.8234	2.91207843

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				**0**	**$ -**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	804.80	
Monthly Asphalt Cement Price month project let (APL)			$	503.00	
Total Monthly Tonnage of asphalt cement (TMT)				0	

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT	**$ 22,623.56**

From: Westberry, Lisa
Sent: Wednesday, March 06, 2019 10:47 AM
To: Wicks, kenneth; Kawesa, Kiki
Cc: Boockholdt, Steven C; Priger, Kaelin M
Subject: PI 0015536, Brantley County - Estimated Mitigation Cost for Concept Report

Kiki,

As requested, the estimated mitigation costs for the subject project is **$15,000.00**. This was based on a review of aerial photography, NWI mapping, and NRCS soil surveys and not an actual field verification. The total cost of mitigation credits could remain the same or change once the ecology field survey is complete.

If you should have any questions or need any additional information, please do not hesitate to contact me.

Thank you,

Lisa Westberry
Special Projects Coordinator

GDOT Georgia Department of Transportation

Office of Environmental Services
One Georgia Center, 16th Floor
600 West Peachtree Street, NW
Atlanta, GA, 30308
404.631.1772

ATTACHMENT 5

CRASH SUMMARIES

Date	Milelog	IntersectingRoute	DistanceFrom	Injuries	Fatalities	MannerOfCollision	NumberOfVehicles	SeriousInjuries	VisibleInjuries	ComplaintInjuries
5/7/2015	0	SEED ORCHARD RD	300	0	0	Angle	2	0	0	1
6/24/2015	10.88		0	2	0	Angle	2	1	1	0
9/7/2015	19.86	MM20	0	0	0	Not A Collision with Motor Vehicle	1	0	0	0
1/22/2016	0	SATILLA PINES RD	528	0	0	Not A Collision with Motor Vehicle	1	0	0	0
1/22/2016	19.86	MM 20	0	0	0	Sideswipe-Same Direction	3	0	0	0
3/18/2016	10.83	MM 20	0	1	0	Rear End	2	1	0	0
4/1/2016	19.86	MM 20	0	0	0	Not A Collision with Motor Vehicle	1	0	0	0
3/19/2017	0	MM 20 PRIVATE DRIVE	0	0	0	Rear End	2	0	0	0
5/24/2018	0	SATILLA PINES RD	0	0	0	Rear End	2	0	0	0
6/28/2018	0	SATILLA PINES RD.	2640	0	0	Not A Collision with Motor Vehicle	1	0	1	0

ATTACHMENT 6

TRAFFIC PROJECTIONS

Department of Transportation
State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE Brantley County,
P.I. # 0015536

OFFICE Planning
DATE March 13, 2018

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

TO Kimberly Nesbitt, State Program Delivery Engineer
Attention: Ken Wicks

SUBJECT **Developed Design Traffic** for SR 520/US 82 Bridge Replacement at Satilla River overflow, 14 miles east of Hoboken.

Per request, we have developed the Design Traffic for the above project. The approved Design Traffic is furnished in the attached documents: 0015536_Memo.pdf & PI_0015536_Consultant_Bridge_Document.pdf

If you have any questions concerning this information, please contact Andre Washington at 404-631-1925.

Andrew Park
HNTB
Design Traffic Consultant to GDOT
404-946-5709

CLV/AJP

To	From
Andre Washington, GDOT Office of Planning	Andrew Park, EIT
Mahesh Atluri, P.E., PTOE, HNTB	Subject
	Traffic Forecasting for
	PI No. 0015536 Brantley County
	Date
	March 13, 2018

Technical Memorandum

1. INTRODUCTION

This memorandum summarizes the methodology and factors used to forecast future traffic volumes for bridge replacement project of Bridge 025-0025-0 on SR 520/US 82 over Satilla River in Brantley County. The total project length is approximately 0.2 miles.

The Existing Year, Opening Year and Design Year for this project are 2016, 2023 and 2043 respectively. The forecasting process will result in Annual Average Daily Traffic (AADT) volumes and Design Hourly Volumes (DHVs) for 2016, 2023, 2043 as well as for the "+2 years" 2025 and 2045.

1.1 Other Projects in the Area

The GDOT GeoPI database was reviewed to identify the projects adjacent to the PI 0015536, that could impact the existing or future traffic volumes or operations along SR 520/US 82. There are no current or future planned projects in the area that would affect traffic volumes within the project limits.

2. METHODOLOGY

The forecasting methodology for establishing No Build and Build traffic projections uses the following data sets:

- Historical AADT (2001 to 2016) from GDOT Geocounts Database
- Population Growth projections from 2010 to 2040
- Georgia Statewide Travel Demand Model (GSTDM) for 2010 and 2040 E+C Scenarios

The traffic forecasting process consisted of the following steps:

- Collect information related to programmed projects and population growth and review their potential impacts to future traffic growth.
- Analyze GDOT Geocounts surveys surrounding the project area
- Review GDOT historical traffic counts to assess traffic growth trends.
- Review Georgia Statewide Travel Demand Model (GSTDM) outputs to estimate future growth rates.
- Apply growth factors to estimate AADT's for 2023, 2025, 2043 and 2045.
- Convert AADT's to DHV's for 2023, 2025, 2043 and 2045 using K & Directional Distribution (D) factors.

3. DATA COLLECTION

3.1 Traffic Data

Existing traffic data was retrieved from the GDOT Geocounts Database. The August 2016 survey from Count Station 0250156, located just west of the project, was examined to determine existing AADT, K-factors, and D-factors. The traffic values are summarized in the **Table 1** below.

Table 1. Bridge ID 025-0025-0 AADT, DHV, Truck Percentage, and Factors Summary

NO BUILD=BUILD	2016 (Existing Year)	2023 (Opening Year)	2025 (Opening Year +2)	2043 (Design Year)	2045 (Design Year + 2)
AADT	7,850	9,025	9,375	13,400	13,950
DHV (AM/PM)	450/620	515/710	540/740	770/1060	800/1100
K% (AM/PM)	5.7%/7.9%	Same as Existing Year			
D% (AM/PM)	51% (EB)/53% (WB)				
24 HR. T% - S.U.	5.5%				
24 HR. T% -COMB.	6.5%				
24 HR. T% -TOTAL	12.0%				
T% - S.U. (AM/PM)	5.5%/4.0%				
T% - COMB. (AM/PM)	6.5%/5.0%				
T% - TOTAL (AM/PM)	12.0%/9.0%				

3.2 Truck Percentages

The existing truck percentages for Daily and the AM and PM Peak Hours were calculated based on a review of Station 0250156 surveys from August 2016. **Table 2** summarizes the existing truck percentages within the project area. Based on the predicted growth within the project area, the proposed truck percentages are assumed to be same as Existing for future Opening and Design years.

Table 2. Existing Truck Percentages

	Daily			AM Peak Hour			PM Peak Hour		
Roadway	Total	S.U.	COMB.	Total	S.U.	COMB.	Total	S.U.	COMB.
SR 520/US 82 W/O Airport Rd	12.00%	5.50%	6.50%	12.00%	5.50%	6.50%	9.00%	4.00%	5.00%

4. CORRIDOR GROWTH RATES

Growth rates from several sources were summarized in the section below, the sources include: historic traffic counts, population projections, and the Georgia Statewide Travel Demand Model (GSTDM). Based on these sources a recommended project growth rate is presented.

4.1 GDOT Historical Traffic Data and Historical Traffic Growth Trends

Historical traffic data (2001-2016) was collected from the GDOT Geocounts data base. Data from five stations around the project area in Brantley County were collected and analyzed.

- 1 stations on SR 520/US 82
- 4 stations on side roads

Table 3 below shows the summary of the GDOT historic data around the project area Detailed historic growth rate calculations are included in **Attachment A**. The stations which had the highest number of counts available for each of 15-year, 10-year and 5-year, were used to estimate growth rate.

Table 3. GDOT Historical Traffic Growth Rates

Historical Traffic Volume Summary				
Roadway	Stations	15 year	10 year	5 year
SR 520/US 82	1	0.06%	0.77%	2.54%
Side Roads	4	0.04%	N/A	N/A

Note: Growth rates from side roads for 10 year and 5 year growth were reviewed, but not included to determine the growth rate due to limited historical data.

4.2 Census Population Data

Population data from the US Census Bureau shows there has been 2.33% annual growth for 2000 to 2010 and -0.05% annual growth from 2010 to 2016 for Brantley County.

Population data from the Georgia Office of Planning and Budget (GOP & B), predicts Brantley County to grow at a rate of -0.48% from 2015 to 2045.

4.3 Travel Demand Model Review

The Georgia Statewide Travel Demand Model (GSTDM) for years 2010 and 2040 was reviewed. The projected volumes of 2040 No-Build and 2040 Build scenarios were analyzed for three distinct links to determine the overall projected growth along the corridor. Based on the model, SR 520/US 82 showed a compounded annual growth rate of 2.40% from 2010 to 2040 for both the No-Build Scenario and Build-Scenario. The weighted model average is likely higher than the census growth and GOP & B estimates because SR 520/US 82 is utilized as a key east-west throughway between the Port of Brunswick and I-95 to I-75. **Table 4** summarizes the GSTDM findings. Additional information is shown in **Attachment B**.

Table 4. Georgia Statewide Travel Demand Model Analysis

Georgia Statewide Travel Demand Model			
Location	Model Traffic Volume		Growth Rate
	2010	2040	
SR 520/US82	6,815	14,062	2.40%
SR 520/US82	9,034	18,103	2.30%
SR 520/US82	7,190	15,458	2.60%
Weighted Average Growth Factor			2.40%

4.4 Recommended Growth Rates

Based on the review of GDOT historical data, GSTDM, and population forecasts, the below growth rates have been proposed in **Table 5** below. Build and No-Build scenarios are equal because the proposed improvements are not expected to result in a significant increase in demand.

Table 5. Proposed No-Build & Build 2016-2023 and 2023-2043 Annual Growth Rates

Roadway	Build/No-Build	
	2016-2023	2023-2043
SR 520/US 82	2.00%	2.00%
Side Roads	2.00%	2.00%

The traffic volumes for the "+2 year" will be attained by using the same Opening Year to Design Year growth rate of 2.00% for No-Build and 2.00% for Build to extend the 2023/2043 volumes to 2025/2045.

5. 2023, 2025, 2043 and 2045 Forecasts

The recommended growth rates are applied to the Existing AADT and Peak Hour DHVs to derive future forecasts for the years 2023, 2025, 2043 and 2045, thereby keeping the K-factors and D-factors to be the same as existing.

ATTACHMENT 7

CAPACITY ANALYSIS SUMMARY

PI 0015536- Highway Capacity Analysis for Directional Two-lane Highway Segment

Inputs	
Terrain:	Level
Shoulder Width:	9 ft(Taken from Transportation Data Viewer)
Highway Class:	1
Lane Width:	12ft
PHF:	0.88
BFFS:	70mph
Access Point Density:	2/mi

Year	Design Hour Volumes	Design Hour Volumes	
	AM	AM	
	EB	WB	Level of service
2016	230	220	C
2023	265	250	C
2025	280	260	C

Year	Design Hour Volumes	Design Hour Volumes	
	PM	PM	
	EB	WB	Level of service
2016	330	290	D
2023	380	330	D
2025	395	345	D

ATTACHMENT 8

BRIDGE INVENTORY DATA

Georgia Department of Transportation
Bridge Inventory Data Listing

Processed Date:Dec-17-2018 11:10:50 AM

Parameters: Bridge Serial Number

Bridge Serial Number: 025-0025-0 **County: Brantley** **SUFF. RATING: 49.5**

Location & Geography

Structure ID:	025-0025-0
200 Bridge Information:	06
*6 Feature Intersected:	SATILLA RIVER OVERFLOW
*7A Route Number Carried:	SR00520
*7B Facility Carried:	US 82 COR Z WBL / SR 520
9 Location:	14 MI E OF HOBOKEN
2 GDOT District:	4841500000 - D5 District Five Jesup
*91 Inspection Frequency:	24 Date: Aug-15-2017
92A Fracture Critical Insp. Freq:	0 Date: Feb-01-1901
92B Underwater Insp Freq:	0 Date: Feb-01-1901
92C Other Spc. Insp Freq:	0 Date: Feb-01-1901
* 4 Place Code:	00000
*5A Inventory Route(O/U):	1
5B Route Type:	2 - U.S. Numbered
5C Service Designation:	1- Mainline
5D Route Number:	00082
5E Directional Suffix:	0. Not applicable
*16 Latitude:	31 - 13.0590
*17 Longtitude:	81 - 52.8864
98A Border Bridge:	0 98B: GA% 00
99 ID Number:	000000000000000
*100 STRAHNET:	2- The Feature is on a Non-Interstate STRAHNET route.
12 Base Highway Network:	Yes
13A LRS Inventory Route:	251052000
13B Sub Inventory Route:	0
101 Parallel Structure:	L. Left structure of parallel bridges
*102 Direction of Traffic:	1- One Way
*264 Road Inventory Mile Post:	19.85
*208 Inspection Area:	Area 05
*104 Highway System:	1-Inventory Route is on the NHS
*26 Functional Classification:	2- Rural - Principal Arterial - Other
*204A Federal Route Type:	F - Primary.
*204B Federal Route Number:	00074
105 Federal Lands Highway:	0. Not applicable
*110 Truck Route:	1- The Feature is part of the National Network For Trucks
217 Benchmark Elevation:	0000.00
* Location ID No:	025-00520D-019.87E

218 Datum:	0- Not Applicable
*19 Bypass Length:	1
*20 Toll:	3- On a Free Road or Non-Highway
*21 Maintenance Responsibility:	01-State Highway Agency.
*22 Owner:	01-State Highway Agency.
*31 Design Load:	6- HS 20 + Mod (2-24,000# Axles @ 4ft Ctrs., when they govern)
37 Historical Significance:	5- Not eligible for the National Register of Historic Places
205 Congressional District:	001
27 Year Constructed:	1964
106 Year Reconstructed:	0
33 Bridge Median:	1-Open
34 Skew:	0
35 Structure Flared:	No
38 Navigation Control:	0- Navigation is not controlled by an Agency
213 Special Steel Design:	0- Not applicable or other
267A Type Paint Super Structure:	2- Non-Lead Oil Alkyd System (System IV). Year : 1994
267B Type Paint Sub Structure:	0- Not Applicable Year : 0000
*42A Type of Service On:	1-Highway
*42B Type of Service Under:	9-Relief
214A Movable Bridge:	0
214B Operator on Duty:	0
203 Type Bridge:	D - Concrete pile. O. Concrete M. Steel O. Concrete
259 Pile Encasement:	3
*43A Structure Type Main material:	4-Steel (Continuous)
*43B Structure Type Main Type:	2-Stringer/Multi-Beam or Girder
45 Number of Main Spans:	34
44 Structure Type Approach:	A:0- Other B: 0- Other
46 Number of Approach Spans:	0
226 Bridge Curve:	A: Vertical: NoB: Horizontal: No
111 Pier Protection:	N - Navigation Control item coded 0, or Feature not a waterway
107 Deck Structure Type:	1 - C-I-P Portland Cement Concrete - Epoxy Coated Rebars
108A Wearing Surface Type:	1. Concrete
108B Membrane Type:	8. Unknown
108C Deck Protection:	8. Unknown
265 Underwater Inspection Area:	0

Signs & Attachments

225 Expansion Joint Type:	02- Open or sealed concrete joint (silicone sealant).
242 Deck Drains:	1- Open Scuppers.
243A Parapet Location:	0- None present.
243B Parapet Height:	0.00
243C Parapet Width:	0.00
238A Curb Height:	1.2
238B Curb Material:	1- Concrete.
239A Handrail Left:	1- Concrete.
239B Handrail Right:	1- Concrete.
*240 Median Barrier Rail:	0- None.
241A Bridge Median Height:	0
241B Bridge Median Width:	0
*230A Guardrail Location Direction Rear:	3- Both sides.
*230B Guardrail Location Direction Fwrd:	3- Both sides.
*230C Guardrail Location Opposing Rear:	0- None.
*230D Guardrail Location Opposing Fwrd:	0- None.
244 Approach Slab:	0- None.
224 Retaining Wall:	0- None.
233 Posted Speed Limit:	65
236 Warning Sign:	No
234 Delineator:	Yes
235 Hazard Boards:	Yes
237A Gas:	00- Not Applicable
237B Water:	00- Not Applicable
237C Electric:	00- Not Applicable
237D Telephone:	00- Not Applicable
237E Sewer:	00- Not Applicable
247A Lighting: Street:	No
247B Navigation:	No
247C Aerial:	No
*248 County Continuity No.:	00
36A Bridge Railings:	2- Inspected feature meets acceptable construction date standards.
36B Transition:	2- Inspected feature meets acceptable construction date standards.
36C Approach Guardrail:	2- Inspected feature meets acceptable construction date standards.
36D Approach Guardrail Ends:	2- Inspected feature meets acceptable construction date standards.

Georgia Department of Transportation
Bridge Inventory Data Listing

Processed Date:Dec-17-2018 11:10:50 AM

Bridge Serial Number: 025-0025-0 **County: Brantley** **SUFF. RATING: 49.5**

Programming Data

201 Project Number:	RAB (4) SP-1777 (13)
202 Plans Available:	4- Plans in InfoImage/GAMS
249 Proposed Project Number:	000000000000000000000000
250A Reconstruction Approval Status:	No
250B Route Approval Status:	No
250C Approval Status Definition:	0
250D Approval Status Federal:	0
251Project Identification Number:	0015536
252 Contract Date:	Feb-01-1901
260 Seismic Number:	00000
75A Type Work Proposed:	0- Not Applicable
75B Work Done by:	0- Initial Inventory
94 Bridge Improvement Cost:(X$1,000)	$2,657
95 Roadway Improvement Cost: (X$1,000)	$266
96 Total Improvement Cost: (X$1,000)	$3985
76 Improvement Length:	0.0'
97 Year Improvement Cost Based On:	2013
114 Future AADT:	10680
115 Future AADT Year:	2032

Measurements:

*29 AADT:	7120
*30 AADT Year:	2012
109 % Truck Traffic:	15
* 28A Lanes On:	2
*28B Lanes Under:	0
210A Tracks On:	00
210B Tracks Under:	0
* 48 Maximum Span Length:	20
* 49 Structure Length:	680
51 Bridge Roadway Width:	28.0'
52 Deck Width:	34.2'
* 47 Total Horizontal Clearance:	28.0'
50A Curb / Sidewalk Width Left:	2.0
50B Curb / Sidewalk Width Right:	2.0
32 Approach Rdwy. Width:	30.0'

***229 Approach Roadway**

Rear Shoulder Left: Width:	2.4	*Right Width:*4.0	Type: 2 - Asphalt.
Fwd Shoulder: Left Width:	2.1	*Right Width:*4.4	Type: 2 - Asphalt.
Rear Pavement: Width:	23.6	*Type:*2- Asphalt.	
Forward Pavement: Width:	23.5	*Type:*2- Asphalt.	
Intersection Rear:	0	*Forward:*0	

Ratings and Posting

65 Inventory Rating Method:	1-Load Factor (LF)
63 Operating Rating Method:	1-Load Factor (LF)
66A Inventory Type:	2 - HS loading.
66B Inventory Rating:	34
64A Operating Type:	2 - HS loading.
64B Operating Rating:	56

231Calculated Loads		**Posting Required**
231A H-Modified:	21	No
231B Type3/Tandem:	30	No
231C Timber:	37	No
231D HS-Modified:	30	No
231E Type 3S2:	40	No
231F Piggyback:	40	No

261 H Inventory Rating:	21
262 H Operating Rating:	36
67 Structural Evaluation:	4
58 Deck Condition:	5 - Fair Condition
59 Superstructure Condition:	4 - Poor Condition
* 227 Collision Damage:	
60A Substructure Condition:	5 - Fair Condition
60B Scour Condition:	6 - Satisfactory Condition
60C Underwater Condition:	N - Not Applicable
71 Waterway Adequacy:	8-Equal to present desirable criteria.
61 Channel Protection Cond.:	7-Better than present minimum criteria.
68 Deck Geometry:	3
69 UnderClr. Horz/Vert:	N
72 Approach Alignment:	7-Between 8 and 6
62 Culvert:	N - Not Applicable
70 Bridge Posting Required:	5. Equal to or above legal loads
41 Struct Open, Posted, CL:	A. Open, no restriction
* 103 Temporary Structure:	No

Hydraulic Data

113 Scour Critical:	5. Foundations stable for conditions; scour within limits
216A Water Depth:	1.1
216B Bridge Height:	19.5
222 Slope Protection:	6
221A Spur Dike Rear:	
221B Spur Dike Fwd:	
219 Fender System:	0- None.
220 Dolphin:	
223A Culvert Cover:	000
223B Culvert Type:	0- Not Applicable
223C Number of Barrels:	0
223D Barrel Width:	0.0
223E Barrel Height:	0.0
223F Culvert Length:	0.0
223G Culvert Apron:	0
39 Navigation Vertical Clearance:	0'
40 Navigation Horizontal Clearance:	0
116 Navigation Vertical Clear Closed:	0

53 Minimum Vertical Clearance Over Rd:	99' 99"
54A Under Reference Feature:	N- Feature not a highway or railroad.
54B Minimum Clearance Under:	0' 0"

***228 Minimum Vertical Clearance**

228A Actual Odometer Direction:	99'99"
228B Actual Opposing Direction:	99'99"
228C Posted Odometer Direction:	00'00"
228D Posted Opposing Direction:	00'00"

55A Lateral Underclearance Reference:	N- Feature not a highway or railroad.
55B Lateral Underclearance on Right:	0.0
56 Lateral Underclearance on Left:	0.0
10A Direction of Travel for Max Min:	0
10B Max Min Vertical Clearance:	99'99"
245A Deck Thickness Main:	6.0
245B Deck Thickness Approach:	0.0
246 Overlay Thickness:	0

232 Posted Loads

232A H-Modified:	00
232B Type3/Tandem:	00
232C Timber:	00
232D HS-Modified:	00
232E Type 3s2:	00
232F Piggyback:	00
253 Notification Date:	Feb-01-1901
258 Federal Notify Date:	Feb-01-1901

ATTACHMENT 9

MEETING MINUTES

Georgia Department of Transportation

FILE: P.I. 0015536

DATE: January 16, 2019

SUBJECT: Concept Team Meeting Minutes

Attendees: Joshua Taylor
Kiki Kawesa
Spencer Pucci
Courtney Farge
Matthew Carol
Chris Rudd
Mark Shuman
Leslie Dubberly

The concept team meeting was held December 12, 2018. The draft concept report was discussed by the team members present. The following are discussion points by section of the concept report:

PLANNING AND BACKGROUND DATA

- Mill creek is the stream being crossed despite the project description stating Satilla river overflow
- Verify deck width for both bridges. Ensure travel lanes, shoulders add up to deck width.
- Include the existing roadway is in an evacuation route
- District noted that project description sounds odd

MAINLINE DESIGN FEATURES

- The existing 34ft median width does not meet the minimum 44ft required by the GDOT Design Policy. A Design Variance will be sought for the existing width.
- For Bike accommodations, put use shared bike able shoulder
- Posted speed limit for the existing should be 65mph/55mph
- Design speed for the proposed should be 45mph to 65mph
- Verify the Design vehicle is WB-67 and not WB-40

UTILITY AND PROPERTY

- For Utility involvement there is no conflict with utilities. Brantley telephone and Okeefonockee EMC are on the south side
- Impacts to USACE property should be marked no

- No additional ROW is expected. The proposed bridge minimum should be 24 ft. and would be offset 10ft for the shoulder. There is room to put the cranes.

ENVIRONMENTAL AND PERMITS

- Verify with Office of Environmental services about the anticipated Environmental documents needed
- There might be a need for a buffer variance under 'Environmental Permits, Variances, Commitments and Coordination anticipated.'

COORDINATION, ACTIVITIES, RESPONSIBILITIES AND COSTS

- Add the Concept Team Meeting minutes
- Section 404 mitigation is expected. Put TBD in the meantime
- ROW costs should be $0
- Reimbursable Utilities should be $0
- Change blue text to black

LIST OF ATTACHMENTS/SUPPORTING DATA

- Attach asphalt fuel adjustment sheets
- Attach bridge inventory data sheets for both bridges
- Attach contingencies / E & I
- Attach utilities if needed

PROJECT LAYOUT

- Indicate the bridge serial numbers to the bridges directly over the Satilla river, east of our project
- Reword the taper descriptions
- Verify taper lengths

TYPICAL SECTIONS

- Eliminate Speed limits on the typical sections
- Include a 2% slope in typical sections
- Existing bridge is in normal crown. Lane 1 will be transmitted to reverse crown
- The 10ft shoulders should be on the left side of the typical sections

COST ESTIMATE

- Include P.I # to traffic control and grading complete
- 433-1000 Reinforced concrete approach slab value is low
- 500-0100 Grooved concrete value is low
- 603-2182 STN dumped riprap, TP3, 24. TP 1 is needed
- Add skip rumble strips
- 167-1500 water quality inspections, the quantity should be 24
- Verify guard rail anchorage quantities
- Need preformed plastic for bridge deck
- 500-3101 class A concrete was duplicated
- Verify the quantity for removal of existing bridge

CRASH SUMMARIES

- Ensure any crash data is included